


MEMORANDUM

INTERMOUNTAIN POWER SERVICE CORPORATION

TO: S. Gale Chapman  PAGE 1 OF 2
FROM: Dennis K. Killian
DATE: November 13, 1991
SUBJECT: Burner Line Restrictor Installation Purchase
Requisition Addendum (PR# 90025)
FILE: 01.12.02, IGS91-3
to Purch. 11/13 by Gary Hintze

Please sign this memo to authorize Purchasing to make an addendum change for additional monies required to complete work on the burner line restrictor changeouts on Unit 2 during this Fall's Outage.

The restrictor work was encompassed as part of the work scope on the flame stabilizer installation which was awarded to Townsend and Bottum (PO# 90025). Due to unforeseen problems with the restrictor installation, **\$54,500 will be required to complete installation on all 25 of the scheduled changeouts.** For \$39,700, we can complete 17 of the most critical restrictor changes.

The problems encountered with the restrictors which has expanded the work scope include:

- The existing restrictor flanges are not bolt aligned. On Babcock and Wilcox's original installation of the restrictors, the flanges at each end of the restrictor are not aligned with the bolt holes. This forces the restrictor that came out, to go back in to its original location or requires cutting and rotating one set of the flanges to get alignment so that a new spool piece can be installed.
- The original flange installation was not trued and leveled. Again, this requires that the original spool piece be pulled and modified with a different insert or that the remaining flange set be cut and realigned.
- The initial estimate to modify original restrictors with different sized insert is more time consuming and difficult than originally expected. B&W did not follow their drawing on assembly of the restrictors so cutting and replacing the insert is not what was originally expected.


IP7_000523

All materials have been received to complete the work scoped on Unit 2. Dollar estimates are based on working two shifts without overtime and weekends. All work is to be completed by the morning of November 27, 1991.

We feel this work is a key factor in the successfulness of the overall burner modification program. Additionally, the warranty on the flame stabilizers is contingent on balancing both the secondary air flow and fuel flows.

The intent of the restrictor changeouts is to balance fuel and primary air flow thru the six coal lines and burners to within 5%. Primary air flow testing conducted by IPSC shows imbalances from burner line to burner line are as high as 11.2% (reference attached graph).

Please contact Jerry Hintze or Aaron Nissen if you have further questions concerning this matter.


AEN:dh
Attachments

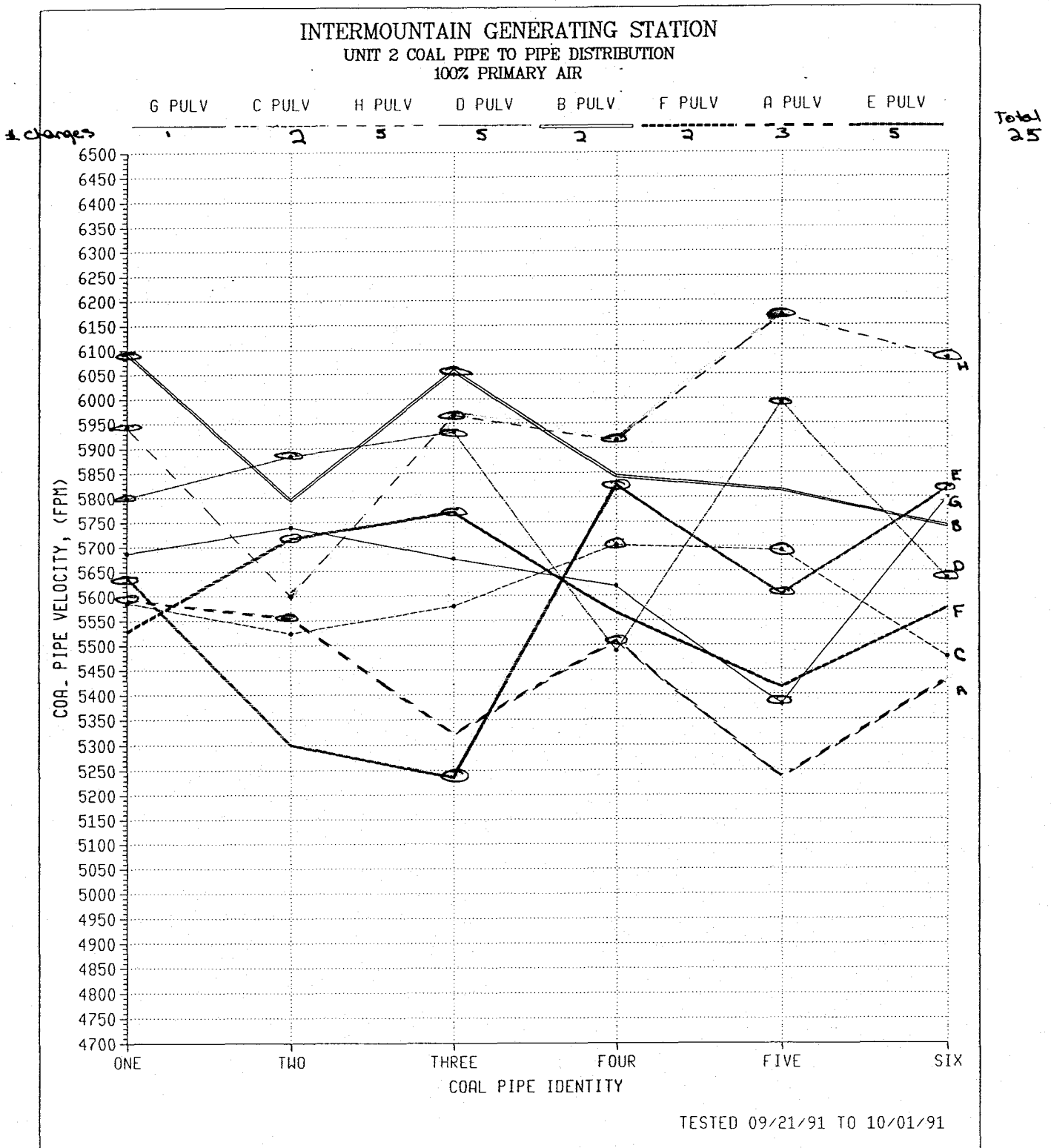
(Please route to Purchasing)


S. Gale Chapman

Unit 2

10/91

Recommendation for Unit 2 Fall Outage
Restrictor Changes



IP7_000525

SUMMARY:

Overage on original contract of \$140,000 \$16,000

To complete remaining restrictors

E,D,H,B pulverizer rows \$21,500
(500 hrs \$18,000 manhours + \$3500 supv) (39700)

AFCG pulverizer rows
(310 hrs \$11,000 + 2500)

13200

10% contingency

\$35,000
3500

38,500

38500

\$54,500

9 days scope

Work to be completed 11/17 morning

regulardays (NO OT, NO WEEKENDS)

STATUS & REMAINING WORK SCOPE

11/12/91

-DO PRINT

Record#	DESCR	QUANT	UN	CF	UMH	TOTMH	TOTLABOR	TOTPRICE
6	E-1 Cut in all new spool	0			0.00	0	0	0
7	Scaffold installed	0			0.00	0	0	0
8	Pipe work not started	0			0.00	0	0	0
9	Layout and prep	1	JO	PF	1.00	1	32	32
10	Relocate rigging equip	1	JO	PF	4.00	4	127	127
11	Place Rigging	1	JO	PF	8.00	8	253	253
12	22" Cut & Prep	2	EA	PF	3.00	6	190	190
13	22" Slip-on weld	2	EA	PF	8.00	16	506	506
14	Set Spool	1	EA	PF	2.00	2	63	63
15	22" BN&G	2	EA	PF	2.00	4	127	127
16	Demoblize Scaffolding	1	JO	CR	4.00	4	98	98
17	E-2 Not Applicable	0			0.00	0	0	0
18	E-3 Modify Existing Insert	0			0.00	0	0	0
19	Scaffold installed	0			0.00	0	0	0
20	Spool being Modified	0			0.00	0	0	0
21	Hanging on all-thread rods	0			0.00	0	0	0
22	Relocate rigging equip	1	JO	PF	8.00	8	253	253
23	Weld out new insert	1	JO	PF	4.00	4	127	127
24	Install new spool	1	JO	PF	2.00	2	63	63
25	22" BN&G	2	JO	PF	2.00	4	127	127
26	Demoblize Scaffolding	1	JO	CR	4.00	4	98	98
27	E-4 Modify Existing Insert	0			0.00	0	0	0
28	Scaffold installed	0			0.00	0	0	0
29	Spool being Modified	0			0.00	0	0	0
30	Hanging on all-thread rods	0			0.00	0	0	0
31	Relocate rigging equip	1	JO	PF	8.00	8	253	253
32	Weld out new insert	1	JO	PF	4.00	4	127	127
33	Install new spool	1	JO	PF	2.00	2	63	63
34	22" BN&G	2	JO	PF	2.00	4	127	127
35	Demoblize Scaffolding	1	JO	CR	4.00	4	98	98
36	E-5 Complete	0	JO		0.00	0	0	0
37	E-6 Swap out with D-1	0	JO		0.00	0	0	0
38	Scaffolding installed	0	JO		0.00	0	0	0
39	Pipe Work not started	0	JO		0.00	0	0	0
40	Relocate rigging equip	1	JO	PF	4.00	4	127	127
41	Place Rigging	1	JO	PF	8.00	8	253	253
42	2-Hole Exist 22" Flg	1	JO	PF	16.00	16	506	506
43	Install relocated Spool	1	JO	PF	2.00	2	63	63
44	22" BN&G	2	JO	PF	2.00	4	127	127
45	Demoblize Scaffolding	1	JO	CR	4.00	4	98	98
46	H-1 Cut in all new spool	0			0.00	0	0	0
47	Scaffold installed	0			0.00	0	0	0
48	Rigging in place	0			0.00	0	0	0
49	Layout and prep	1	JO	PF	1.00	1	32	32
50	22" Cut & Prep	2	EA	PF	3.00	6	190	190
51	22" Slip-on weld	2	EA	PF	8.00	16	506	506
52	Set Spool	1	EA	PF	2.00	2	63	63
53	22" BN&G	2	EA	PF	2.00	4	127	127
54	Demoblize Scaffolding	1	JO	CR	4.00	4	98	98
55	H-2 Not Applicable	0			0.00	0	0	0
56	H-3 Cut in all new spool	0			0.00	0	0	0
57	Scaffold installed	0			0.00	0	0	0
58	Rigging in place	0			0.00	0	0	0
59	Layout and prep	1	JO	PF	1.00	1	32	32
60	22" Cut & Prep	2	EA	PF	3.00	6	190	190
61	22" Slip-on weld	2	EA	PF	8.00	16	506	506
62	Set Spool	1	EA	PF	2.00	2	63	63
63	22" BN&G	2	EA	PF	2.00	4	127	127
64	Demoblize Scaffolding	1	JO	CR	4.00	4	98	98
65	H-4 New Spool at Exist Flanges	0	JO		0.00	0	0	0

1400

45
16-270

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68	2-Hole Exist 22" Flg	1 JO PF	10.00	10	63	63
69	Set Spool	1 EA PF	2.00	2	63	63
70	22" BN&G	2 EA PF	2.00	4	127	127
71	Demoblize Scaffolding	1 JO CR	4.00	4	98	98
72	H-5 New Spool at Exist Flanges	0 JO	0.00	0	0	0
73	Scaffold installed	0 JO	0.00	0	0	0
74	Rigged and spool out	0 JO	0.00	0	0	0
75	2-Hole Exist 22" Flg	1 JO PF	16.00	16	506	506
76	Set Spool	1 EA PF	2.00	2	63	63
77	22" BN&G	2 EA PF	2.00	4	127	127
78	Demoblize Scaffolding	1 JO CR	4.00	4	98	98
79	H-6 New Spool at Exist Flanges	0 JO	0.00	0	0	0
80	Scaffold Installed	0 JO	0.00	0	0	0
81	Relocate rigging equip	1 JO PF	4.00	4	127	127
82	Place Rigging	1 JO PF	8.00	8	253	253
83	Remove spool	1 EA PF	3.00	3	95	95
84	2-Hole Exist 22" Flg	1 JO PF	16.00	16	506	506
85	Set Spool	1 EA PF	2.00	2	63	63
86	22" BN&G	2 EA PF	2.00	4	127	127
87	Demoblize Scaffolding	1 JO CR	4.00	4	98	98
88	D-1 New Spool at Exist Flanges	0 JO	0.00	0	0	0
89	Scaffold Installed	0 JO	0.00	0	0	0
90	Relocate rigging equip	1 JO PF	4.00	4	127	127
91	Place Rigging	1 JO PF	8.00	8	253	253
92	Remove spool	1 EA PF	3.00	3	95	95
93	2-Hole Exist 22" Flg	1 JO PF	16.00	16	506	506
94	Set Spool	1 EA PF	2.00	2	63	63
95	22" BN&G	2 EA PF	2.00	4	127	127
96	Demoblize Scaffolding	1 JO CR	4.00	4	98	98
97	D-2 New Spool at Exist Flanges	0 JO	0.00	0	0	0
98	Scaffold installed	0 JO	0.00	0	0	0
99	Rigged and spool out	0 JO	0.00	0	0	0
100	Exist flg cut off for 2 ho	0	0.00	0	0	0
101	22" Slip-on weld	2 EA PF	8.00	16	506	506
102	Set Spool	1 EA PF	2.00	2	63	63
103	22" BN&G	2 EA PF	2.00	4	127	127
104	Demoblize Scaffolding	1 JO CR	4.00	4	98	98
105	D-3 New Spool at Exist Flanges	0 JO	0.00	0	0	0
106	Scaffold Installed	0 JO	0.00	0	0	0
107	No Piping work started	0	0.00	0	0	0
108	Relocate rigging equip	1 JO PF	2.00	2	63	63
109	Place Rigging	1 JO PF	4.00	4	127	127
110	Remove spool	1 EA PF	3.00	3	95	95
111	2-Hole Exist 22" Flg	1 JO PF	16.00	16	506	506
112	Set Spool	1 EA PF	2.00	2	63	63
113	22" BN&G	2 EA PF	2.00	4	127	127
114	D-4 Completed	0	0.00	0	0	0
115	D-5 Cut in all new spool	0	0.00	0	0	0
116	Scaffold installed	0	0.00	0	0	0
117	Pipe work not started	0	0.00	0	0	0
118	Layout and prep	1 JO PF	1.00	1	32	32
119	Relocate rigging equip	1 JO PF	4.00	4	127	127
120	Place Rigging	1 JO PF	8.00	8	253	253
121	22" Cut & Prep	2 EA PF	3.00	6	190	190
122	22" Slip-on weld	2 EA PF	8.00	16	506	506
123	Set Spool	1 EA PF	2.00	2	63	63
124	22" BN&G	2 EA PF	2.00	4	127	127
125	Demoblize Scaffolding	1 JO CR	4.00	4	98	98
126	D-6 Not Applicable	0	0.00	0	0	0
127	E-1 New Spool at Exist Flanges	0 JO	0.00	0	0	0
128	Scaffold installed	0 JO	0.00	0	0	0
129	Rigged and spool out	0 JO	0.00	0	0	0
130	2-Hole Exist 22" Flg	1 JO PF	16.00	16	506	506
131	Set Spool	1 EA PF	2.00	2	63	63
132	22" BN&G	2 EA PF	2.00	4	127	127

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135	B-3 New Spool at Exist Flanges	0 JO	0.00	0	0	0
136	Scaffold Installed	0 JO	0.00	0	0	0
137	Relocate rigging equip	1 JO PF	4.00	4	127	127
138	Place Rigging	1 JO PF	8.00	8	253	253
139	Remove spool	1 EA PF	3.00	3	95	95
140	2-Hole Exist 22" Flg	1 JO PF	16.00	16	506	506
141	Set Spool	1 EA PF	2.00	2	63	63
142	22" BN&G	2 EA PF	2.00	4	127	127
143	B-4 Not Applicable	0	0.00	0	0	0
144	B-5 Not Applicable	0	0.00	0	0	0
145	B-6 Not Applicable	0	0.00	0	0	0
1	CONSUMABLES(% of direct labor)	0 %	0.00	0	0	0
2	SUBTOTAL JOB COSTS	0	0.00	492	15200	15200
3	CONTINGENCY(% of Job costs)	0 %	0.00	0	0	0
4	OVRHD & PROFIT(% Job Cst+Cont)	15 %	0.00	0	0	2280
5	TOTAL PRICE	0	0.00	0	0	17480

Does include foreman costs

FOREMAN 50.40 \$
4 DAYS

432 PF
7 NIGHTS
6 HOURS

1260.00
CONF. NIGHT
I.C.
OVERTIME
1.5x

12.50
HMA

100
NO BACK

